

1. A binding protein specific for a junctional epitope created by a transient protein:protein interaction, which binding protein stabilises the protein:protein interaction.

2. The binding protein of claim 1, which:

(a) has no detectable binding to each individual component of the protein:protein interaction in the absence of the other; and/or

(b) has a dissociation constant (K_D) for binding to the protein:protein interaction that is at least 10 fold lower than the K_D for binding to each individual protein component of the protein:protein interaction.

3. The binding protein of claim 1 or 2, wherein between 20% and 80% of the epitope is present on one of the proteins of the protein:protein interaction, with the remainder of the epitope present on the other protein.

4. The binding protein of claim 1, 2 or 3, wherein the two proteins of the transient protein:protein interaction have a dissociation rate (k_{off}) in the absence of the binding protein of greater than 0.01 s^{-1} , optionally greater than 0.025 s^{-1} .

5. The binding protein of any one of the preceding claims, wherein in the presence of the binding protein the two components of the transient protein:protein interaction have a dissociation rate (k_{off}) of less than 0.01 s^{-1} , optionally less than 0.001 s^{-1} or less than 0.0005 s^{-1} .

6. The binding protein of claim 4 or 5, wherein the k_{off} is measured by surface plasmon resonance at 25°C .

7. The binding protein of any one of the preceding claims, wherein the dissociation rate (k_{off}) for the transient protein:protein interaction is reduced at least 10 fold, at least 50 fold or at least 100 fold in the presence of the binding protein.

8. The binding protein of any one of the preceding claims, wherein the dissociation constant (K_D) for the protein:protein interaction is reduced at least 10 fold, at least 50 fold or at least 100 fold in the presence of the binding protein.

9. The binding protein of any of the preceding claims, wherein the protein:protein interaction is the IL-6/gp80 interaction.

10. The binding protein of any one of the preceding claims, which is an antibody or fragment thereof.

11. The binding protein of claim 10, wherein the heavy chain variable region (V_H) of the antibody or fragment thereof has interactions with both proteins of the protein:protein interaction, the light chain variable region (V_L) has interactions with both proteins of the protein:protein interaction, or both the V_H and V_L have interactions with both proteins of the protein:protein interaction.

12. The binding protein of claim 10 or 11, wherein one or more individual complementarity determining regions (CDRs) of the V_H and/or V_L interact with both components of the protein:protein interaction.

13. The binding protein of any one of the preceding claim 10, 11 or 12, which is a Fab, scFv or VHH.

14. The binding protein of any one of claims 10-13, wherein the protein:protein interaction is the IL-6/gp80 interaction and wherein the antibody or fragment thereof comprises at least one heavy chain complementarity determining region (HCDR) sequence selected from SEQ ID NOs: 2-4.

15. The binding protein of claim 14, wherein the antibody or fragment thereof comprises a HCDR3 of SEQ ID NO: 4.

16. The binding protein of claim 15, which additionally comprises a HCDR1 of SEQ ID NO: 2 and a HCDR2: of SEQ ID NO: 3.

17. The binding protein of any one of claims 10-13, wherein the protein:protein interaction is the IL-6/gp80 interaction and wherein the antibody or fragment thereof comprises HCDR1, HCDR2 and HCDR3 sequences contained within a heavy chain variable region (V_H) of SEQ ID NO: 1.

18. The binding protein of any one of claims 10-17, wherein the antibody or fragment thereof comprises a V_H sequence of SEQ ID NO: 1, or a sequence at least 90% identical thereto.

19. The binding protein of claim 18, wherein the HCDR1, HCDR2 and HCDR3 sequences consist of SEQ ID NOs: 2, 3 and 4 respectively, and wherein the remainder of the V_H has at least 90% identity to SEQ ID NO: 1.

20. The binding protein of any one of claims 10-13, wherein the binding protein is an antibody or fragment thereof which binds to the same epitope on IL-6/gp80 as, or competes for binding with, an antibody or fragment thereof as defined in any one of claims 14-19.

21. An isolated polynucleotide encoding one or both chains of an antibody or fragment thereof as defined in any one of claims 10-20.

22. The isolated polynucleotide of claim 21, which encodes a V_H of SEQ ID NO: 1 and has a sequence of SEQ ID NO: 5.

23. A vector comprising the polynucleotide of claim 21 or 22.

24. A host cell comprising the vector of claim 23.

25. A method of producing an antibody or fragment thereof as defined in any one of claims 10-20, said method comprising culturing the host cell as defined in claim 24 in a medium to produce the antibody according to any one of claims 10-20 and collecting the antibody or fragment thereof from the culture.

26. A pharmaceutical composition comprising the binding protein of any one of claims 1-20 and a pharmaceutically acceptable carrier or diluent.

27. Use of a binding protein as defined in any one of claims 1-20 in delivering cargo to a target cell.

28. The use of claim 27, wherein the cargo is a diagnostic or therapeutic agent.

29. A method of delivering cargo to a target cell, comprising:

(1) administering two targeting molecules, wherein:

the first targeting molecule comprises a first targeting portion which binds specifically to a first target molecule on the target cell and wherein the targeting portion is linked to the first protein component of a transient protein:protein interaction; and

the second targeting molecule comprises a second targeting portion which binds specifically to a second target molecule on the target cell and wherein the targeting portion is linked to the second protein component of the transient protein:protein interaction;

(2) administering a binding protein specific for a junctional epitope created by the transient protein:protein interaction, which binding protein is linked to the cargo and wherein the binding protein is as defined in any one of claims 1-20 above.

30. The method of claim 29, wherein the cargo is a diagnostic or therapeutic agent.

31. The method of claim 29 or 30, wherein the target cell is a cancer cell.